REMARKS

Applicant respectfully requests reconsideration of the present application in view of the reasons that follow. Claims 1-3, 6-13, and 16-20 remain pending in this application, and are submitted for reconsideration.

Applicant wishes to thank the Examiner for the careful consideration given to the claims.

Rejection of claims 1-2, 6, and 9 based on Birkner '698, Sandland, and Ohtombe

Claims 1-2, 6, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0051698 ("Birkner '698") in view of U.S. Patent 4,618,938 ("Sandland") and U.S. Patent 4,764,969 ("Ohtombe"). For at least the following reasons, this rejection is traversed.

Claim 1 recites "a transport mechanism being provided between the cassette element for the semiconductor substrates and the first measurement unit for thin-layer micrometrology, and a measurement unit for thin-layer macrometrology, wherein the measurement unit for thin-layer macrometrology is positioned in a region of the transport mechanism, after the cassette element and before the first measurement unit for thin-layer micrometrology such that the semiconductor substrates are transported from the cassette element beneath the measurement unit for thin-layer macrometrology to the first measurement unit for thin-layer micrometrology." The measurement unit for thin-layer macrometrology of claim 1 is provided on the path from the cassette element to the measurement unit for thin-layer micrometrology. The measurement unit for thin-layer macrometrology is arranged such that the semiconductor substrates are transported past or beneath the measurement unit for thin-layer macrometrology. Birkner '698, Sandland, Ohtombe, or any combination thereof fails to teach or suggest this combination of features.

Birkner '698 discloses an apparatus for transporting and inspecting substrates but does not teach or suggest that any inspection and/or imaging is done during the transport from the load port to the workstation, i.e., while the substrate is being conveyed on the substrate conveying module 1. Indeed Birkner '698 merely teaches the use of two work stations and a substrate conveying module 1 located between them. Sandland and Ohtombe do not cure this deficiency. For example, Fig. 2 of Sandland is a schematic drawing of the arrangement of the various elements of a wafer inspection system. However, there is no teaching or suggestion of a unit for thin-layer macrometrology being arranged in the transport path of the wafer from

the cassette element to the device for inspecting microdefects. The PTO asserts that "Sandland...teaches transferring the wafers from cassettes beneath a macro inspection to a microinspection system" and cites Figure 3 of Sandland. (Paragraph 3 of the Office Action.) However, the device of Sandland, particularly the turntable 94 is of a completely different configuration from the substrate conveying module 1 of Birkner '698, and thus the two devices are not compatible with each other. If the substrate conveying module 1 of Birkner '698 is used, the semiconductor substrates are not transported from the cassette element beneath the measurement unit for thin-layer macrometrology to the first measurement unit for thin-layer micrometrology. If the transfer device of Sandland is used, there is no transport mechanism being provided between the cassette element and the first measurement unit for thin-layer micrometrology, but merely a transfer mechanism (the arm 90 of Sandland) transporting the substrates from the cassette element to the measurement unit for thin-layer macrometrology and a transfer mechanism (the turntable 94 of Sandland) transporting the substrates from the measurement unit for thin-layer macrometrology to the first measurement unit for thin-layer micrometrology. Thus, no combination of Birkner '698 and Sandland teaches or suggests a transport mechanism being provided between the cassette element and the first measurement unit for thin-layer micrometrology and the semiconductor substrates being transported from the cassette element beneath the measurement unit for thin-layer macrometrology to the first measurement unit for thin-layer micrometrology. Ohtombe does not cure the deficiencies of Birkner '698 and Sandland. In Ohtombe, the entire surface of the wafer is imaged but there is no teaching or suggestion for providing a unit for thin-layer macrometrology in the pathway from the cassette element to the microinspection. Thus, no combination of Birkner '698, Sandland, and Ohtombe teaches or suggests all the features of claim 1. Accordingly, claim 1 is not rendered unpatentable over the prior art.

Claims 2, 6, and 9 depend from and contain all the features of claim 1, and are allowable for at least the same reasons as claim 1, without regard to the further patentable features contained therein.

For at least these reasons, favorable reconsideration of the rejection is respectively requested.

Rejection of claims 3 and 7-8 based on Birkner '698, Sandland, Ohtombe, and Birkner '999

Claims 3 and 7- 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birkner '698, Sandland, and Ohtombe in view of U.S. Patent Application Publication 2002/0095999 ("Birkner '999"). Claims 3 and 7-8 depend from and contain all the features of claim 1. As previously mentioned, any combination of Birkner '698, Sandland, and Ohtombe does not teach or suggest all the features of claim 1, particularly a transport mechanism being provided between the cassette element and the first measurement unit for thin-layer micrometrology and the semiconductor substrates being transported from the cassette element beneath the measurement unit for thin-layer macrometrology to the first measurement unit for thin-layer micrometrology. Birkner '999 does not cure these deficiencies. Thus, claims 1 and its dependent claims 3 and 7-8 are not rendered unpatentable over the prior art. For at least this reason, favorable reconsideration of the rejection is respectfully requested.

Rejection of claims 10-13, 16, and 18 based on Birkner '698, ADPA, Sandland, and Ohtombe

Claims 10-13, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birkner '698 in view of Applicant's Disclosure of the Prior Art ("ADPA"), Sandland, and Ohtombe

Claim 10 recites "transferring semiconductor substrates out of at least one cassette element to a measurement unit for thin-layer micrometrology using a transport mechanism provided between the cassette element and the measurement unit for thin-layer micrometrology, the semiconductor substrates being guided past a measurement unit for thin-layer macrometrology during transport to the measurement unit for thin-layer micrometrology." As previously mentioned, Birkner '698, Sandland, and Ohtombe do not teach or suggest a transport mechanism provided between the cassette element and the measurement unit for thin-layer micrometrology and the semiconductor substrates being guided past a measurement unit for thin-layer macrometrology during transport to the measurement unit for thin-layer micrometrology. ADPA does not cure these deficiencies. For at least these reasons, claim 10 is not rendered unpatentable over the prior art.

Claims 11-13, 16, and 18 depend from and contain all the features of claim 10, and are allowable for at least the same reasons as claim 10, without regard to the further patentable features contained therein.

For at least these reasons, favorable reconsideration of the rejection is respectively requested.

Rejection of claim 17 based on Birkner '698, ADPA, Nikoonahad, and Birkner '999

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Birkner '698 and ADPA in view of U.S. Patent 6,919,957 ("Nikoonahad") and Birkner '999. Claim 17 depends from and contains all the features of claim 10. Any combination of Birkner '698 and ADPA does not teach or suggest all the features of claim 10, particular a transport mechanism provided between the cassette element and the measurement unit for thin-layer micrometrology and the semiconductor substrates being guided past a measurement unit for thin-layer macrometrology during transport to the measurement unit for thin-layer micrometrology, for the analogous reasons as to why any combination of Birkner '698, ADPA, Sandland, and Ohtombe fails to teach or suggest these features. Nikoonahad and Birkner '999 do not cure these deficiencies. Thus, claim 10 and its dependent claim 17 are not rendered unpatentable over the prior art. For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Rejection of claim 19 based on Birkner '698, Sandland, Ohtombe, and Nikoonahad

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Birkner '698, Sandland, and Ohtombe in view of Nikoonahad. Claim 19 depends from and contain all the features of claim 1. As previously mentioned, any combination of Birkner '698, Sandland, and Ohtombe does not teach or suggest all the features of claim 1, particularly a transport mechanism being provided between the cassette element and the first measurement unit for thin-layer micrometrology and the semiconductor substrates being transported from the cassette element beneath the measurement unit for thin-layer macrometrology to the first measurement unit for thin-layer micrometrology. Nikoonahad does not cure these deficiencies. Thus, claims 1 and its dependent claim 19 are not rendered unpatentable over the prior art. For at least this reason, favorable reconsideration of the rejection is respectfully requested.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 9/13/2007

By Matthew J Kremer

FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 672-5426
Facsimile: (202) 672-5399

Glenn Law
Registration No. 34,371

Matthew J. Kremer
Registration No. 58,671